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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/576,510	05/24/2006	Lothar Volkl	06038	6279
23338 7590 11/29/2007 DENNISON, SCHULTZ & MACDONALD 1727 KING STREET SUITE 105 ALEXANDRIA, VA 22314			EXAMINER BASHAW, HEIDI M	
			ART UNIT 3732	PAPER NUMBER
			MAIL DATE 11/29/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.		Applicant(s)	
	10/576,510		VOLKL ET AL.	
	Examiner		Art Unit	
	Heidi M. Bashaw		3732	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 May 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 April 2006 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>4/20/2006, 7/12/2006</u> . | 6) <input type="checkbox"/> Other: _____ |

Drawings

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the duplicate with the references must be shown or the feature(s) canceled from the claim(s). No new matter should be entered. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.
2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: 38. Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to the specification to add the reference character(s) in the description in

Art Unit: 3732

compliance with 37 CFR 1.121(b) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 1-12 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The claims are generally narrative and indefinite, failing to conform with current U.S. practice. They appear to be a literal translation into English from a foreign document and are replete with grammatical and idiomatic errors, for example in claim 7 the applicant states: "the duplicate is spaced on all sides to the edge of the base plate." It is unclear what the applicant is trying to claim.

5. Claim 6 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention, the phrase "for example" renders the claim indefinite because

it is unclear whether the limitation(s) following the phrase are part of the claimed invention. See MPEP § 2173.05(d).

6. Claims 8-9 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In claim 8, the applicant states in line 2 of the claim that a plate is used. It is unclear if this plate is the base plate or another plate.

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Guiot et al. 6,287,121 (Guiot).

9. Re claim 1, Guiot discloses a process for determining the form of a duplicate of a residual tooth area which is to be fitted with a dental restoration such as a bridge or framework, whereby the duplicate sections to be fitted with the restoration or duplicate sections determining their design are removed from the duplicate (col. 3, ll. 23-25) and the form data to be allocated to their forms has to be determined and stored in a computer, by means of which the form of the restoration is calculated taking into consideration the spatial allocation of the duplicate sections, characterized in that the duplicate sections are or are being individually referenced as to their spatial allocation to

Art Unit: 3732

each other in a referencing stored in the computer, and which is independent of the duplicate (col. 3, ll. 61-65, col. 4, ll. 35-37).

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. Claims 2-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Guiot et al. 6,287,121 (Guiot) in view of Burger 4,767,330.

12. Re claim 2, Guiot teaches the duplicate is split apart for obtaining the duplicate sections (col. 3, ll. 23-35), and thereupon the duplicate sections are measured taking into consideration references (col. 3, ll. 61-65)

13. Guiot does not teach the process characterized in that a casting is taken from at least one of the residual teeth areas of the jaw to be fitted with a restoration, that from the casting a model is fabricated as the duplicate by pouring out of the casting with plaster, the duplicate is attached on a ready-made base plate having references, that the base plate with the duplicate attached thereon is split apart for obtaining the duplicate sections, and thereupon the duplicate sections are measured taking into consideration references, which exist on the base plate sections, onto which the duplicate sections are arranged as illustrated in fig. 6A. The references taken into consideration are the edges of the base plate displayed in fig. 6A.

Art Unit: 3732

14. Burger teaches the process characterized in that a casting is taken from at least one of the residual teeth areas of the jaw to be fitted with a restoration, that from the casting a model is fabricated as the duplicate by pouring out of the casting with plaster (col. 1, ll. 15-16, col. 4, ll. 16-23), the duplicate is attached on a ready-made base plate having references (col. 3, ll. 30-33)

15. It would have been obvious to one having ordinary skill in the art at the time of the invention to modify Guiot in view of Burger in order to facilitate position on the segments relative to the base plate as taught by Burger (col. 3, ll. 30-33).

16. Re claim 3, Guiot teaches the process for determining the form of a duplicate of a residual tooth area characterized in that markings are used as references, the markings being the division of the duplicate (col. 3, ll. 23-24).

17. Re claim 4, Guiot does not teach the process for determining the form of a duplicate of a residual tooth area characterized in that points or lines may be used as markings on the base plate.

18. Burger teaches the process for determining the form of a duplicate of a residual tooth area characterized in that lines are used as markings on the base plate as illustrated in fig. 1.

19. It would have been obvious to one having ordinary skill in the art at the time of the invention to modify Guiot in view of Burger in order to facilitate position on the segments relative to the base plate as taught by Burger (col. 3, ll. 30-33).

20. Re claim 5, Guiot does not teach the process for determining the form of a duplicate of a residual tooth area characterized in that as geometrical properties, delimitations such as edges or at least surface sections of the base plate are used.

21. Burger teaches the process for determining the form of a duplicate of a residual tooth area characterized in that as geometrical properties, delimitations such as edges or at least surface sections of the base plate are used (col. 4, ll. 37-42).

22. It would have been obvious to one having ordinary skill in the art at the time of the invention to modify Guiot in view of Burger in order to facilitate position on the segments relative to the base plate as taught by Burger (col. 3, ll. 30-33).

23. Re claim 6, Guiot does not teach the process for determining the form of a duplicate of a residual tooth area characterized in that the duplicate is surface ground and with the underside is attached to a plane surface of the base plate following a tooth arc.

24. Burger teaches the process for determining the form of a duplicate of a residual tooth area characterized in that the duplicate is surface ground and with the underside is attached to a plane surface of the base plate following a tooth arc (col. 4, ll. 16-20).

25. It would have been obvious to one having ordinary skill in the art at the time of the invention to modify Guiot in view of Burger in order to be able to divide the duplicate and base plate by vertical cuts as taught by Burger (col. 4, ll. 20-23).

26. Re claim 7, Guiot does not teach the duplicate is attached to the base plate in such a way that the duplicate is spaced on all sides to the edge of the base plate.

27. Burger teaches the duplicate is attached to the base plate in such a way that the duplicate is spaced on all sides to the edge of the base plate as illustrated in fig. 1.

28. It would have been obvious to one having ordinary skill in the art at the time of the invention to modify Guiot in view of Burger in order to facilitate position on the segments relative to the base plate as taught by Burger (col. 3, ll. 30-33).

29. Re claim 8, Guiot does not teach that a plate is used, which exhibits in or at least along a longitudinal wall running along the duplicate a texture such as a zigzag geometry.

30. Burger teaches a plate is used, which exhibits in or at least along a longitudinal wall running along the duplicate a texture such as a wave-shaped or zigzag geometry as illustrated in fig. 1.

31. It would have been obvious to one having ordinary skill in the art at the time of the invention to modify Guiot in view of Burger in order to facilitate position on the segments relative to the base plate as taught by Burger (col. 3, ll. 30-33).

32. Re claim 9, Guiot does not teach that intersection or virtual interfaces of peripheries of the zigzag geometry are used as references.

33. Burger teaches teach that intersection or virtual interfaces of peripheries of the wave-shaped or zigzag geometry are used as references (col. 4, ll. 40-42).

34. It would have been obvious to one having ordinary skill in the art at the time of the invention to modify Guiot in view of Burger in order to facilitate position on the segments relative to the base plate as taught by Burger (col. 3, ll. 30-33).

Art Unit: 3732

35. Re claim 10, Guiot teaches taking a casting of at least one of the residual tooth areas comprising part of the jaw (col. 2, ll. 51-53) measuring the duplicate section for capturing form data and the references provided on the respective base plate sections (col. 3, ll. 23-25), matching the data which correspond to the references of the individual model sections with the references data stored in the computer (col. 3, ll. 61-65) and fabrication of the dental restoration under consideration of the form data and the data gained by matching (col. 5, ll. 46-47).

36. Guiot does not teach fabrication of the duplicate by filling the casting with plaster, mounting the duplicate on the base plate having the references and splitting the base plate with thereon attached duplicate for obtaining model section which comprise the duplicate sections.

37. Burger teaches fabrication of the duplicate by filling the casting with plaster (col. 1, ll. 15-16), mounting the duplicate on the base plate having the references and splitting the base plate with thereon attached duplicate for obtaining model section which comprise the duplicate sections (col. 4, ll. 16-23).

38. It would have been obvious to one having ordinary skill in the art at the time of the invention to modify Guiot in view of Burger in order to facilitate position on the segments relative to the base plate as taught by Burger (col. 3, ll. 30-33).

39. Re claim 11, Guiot teaches the duplicate is directly provided with references, the references being characteristics of the teeth (col. 2, ll. 51-53).

40. Re claim 12, Guiot teaches the references are produced when making the casting (col. 2, ll. 51-53).

Conclusion

41. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Andersson et al. 5,607,305.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Heidi M. Bashaw whose telephone number is 571-270-3081. The examiner can normally be reached on Mon-Thurs.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cris Rodriguez can be reached on 571-272-4964. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

**/John J Wilson/
Primary Examiner
Art Unit 3732**

Heidi Bashaw
HMB
11/27/2007